

What are the opportunities for provincial collaboration with the Mathematics curriculum?

Collaboration among consortia is taking place in various forms including provincial face-to-face meetings, video conferencing, Elluminate meetings, Wikis, and through the SAPDC Moodle site in an effort to ensure more efficiency throughout the consortia, including but not limited to duplication of presenters and more efficient use of time and funds, etc.

Consortia is offering many professional learning opportunities province-wide via alternate delivery methods including webinars. Webcasts and video conferencing. Such delivery methods offer teachers the opportunity to access professional learning where they do not have to leave their classroom and at a lower cost. Alternate delivery modes also allow for increased variety for adult learning.

Data has indicated the need for continued job-embedded support as is being planned such as by teachers from two separate consortia teaching Mathematics 10C and 10-3 course and posting lessons, resources, reflections on the Moodle site.

Collaboration with other PD providers – Consortia works with various providers to bring professional learning opportunities including.

A Provincial Demonstration Project for beginning teachers on differentiation in the classroom was initiated with consortia and delivered through collaboration from various stakeholders including consortia, AAC, 2Learn and the ATA via Elluminate and cached webinars. As part of this project, cohorts of educators, some of which pertain to Mathematics, and some of which are provincial and some of which are regional are working together.

Collaboration with Alberta Education –Consortia works closely with Alberta Education to bring professional learning opportunities to educators including, but not limited to bringing Alberta Education presenters to the regions and working together on the province-wide high school Institutes.

Why implementation of the revised Mathematics Program of Studies is not complete.

Grade 11 needs continued support in the implementation year and Grade 12 has not been addressed - If our goal is to provide effective professional development opportunities for implementation of the revised Mathematics Program of Studies to all Grades K – 12 Mathematics teachers, administrators and curriculum leaders in the SAPDC region then we must provide at least two more years to include opportunities for educators of grades 11 and 12.

Support is required in pre-implementation, implementation and follow-up years - Feedback from teachers and district leaders, as well as the research on successful implementation indicates that implementation support is necessary not only in the pre-implementation years, but also during the year of implementation as well as in subsequent years. Additional support is being required and requested in the year of implementation and beyond.

Educators are requesting more time and professional learning opportunities – Although data indicates a high percentage of teachers are comfortable with teaching the various areas of the revised P of S and their has been a change in teaching practices comments indicate that “more time and professional learning opportunities are needed particularly in the areas of problem solving, effective integration of technology, differentiation, assessment as well as project-based and inquiry learning.

Technology - Delivery via VC and/or webinars is relatively new and often neither presenters nor participants are familiar with the technology and do not have the expertise to participate. Even with supports in place to assist in building participant capacity, data indicates such forms of delivery are not rated as preferred delivery formats on the Mathematics survey. Such being the case, it is necessary that teachers continue to be offered alternate forms of delivery, opportunities to build their capacity to use technology mediated sessions, and that technical assistance at the district level for each technology mediated session must be in place.

Planning - Districts vary greatly in their PD planning processes and plans. While some districts have clear and comprehensive PD plans with regards to Mathematics implementation, many are still at the beginning stages of using the principles found within the *Comprehensive Guide to PD Planning* to inform decisions about Mathematics support and require further support.

Lack of background knowledge – Consortia data indicates that a very high percentage of Mathematics educators do not have a background in Mathematics; that Mathematics is not their area of study in university. Continued support is needed for new teachers entering the field and teachers new to teaching mathematics.

Parent professional learning - Parent comments indicate the need and desire to be more informed about the revised Mathematics P of S.

Key Messages

Consortia is responding to the demand by society and cry from Albertans, for an education system that prepares our children with the skills to be active citizens in the 21st century. Data including, but not limited to, number of sessions and participants, satisfaction with sessions, and change of practice that is taking place in classrooms indicate that the work of the Alberta Regional Consortia in the area of Mathematics, has been successful in empowering innovation in our schools, and creating many pockets where transformation is beginning to occur throughout Alberta.

Through the “bold and courageous” support of consortia offering numerous and various professional learning opportunities on the revised Mathematics Program of Studies educators are beginning to change their own philosophies about the teaching and learning of Mathematics. The changes in the revised Mathematics curriculum, to a focus on process skills and student centered instructional strategies, has provided the platform for major transformation in our education system to take place. Through numerous and various Mathematics professional learning opportunities consortia has worked with educators to instill the very qualities they need to strive to instill in our children - being engaged thinkers who think critically and are creators of their own knowledge, use technology, and are life long learners. Professional learning opportunities provided are integrated and relevant; instructional strategies no longer just the dissemination of information but one of process and inquiry; teachers’s differing needs are being respected, they are being provided choice and opportunities to learn at their own pace; and diverse approaches to assessment are being integrated into their learning.

While consortia has continued to offer support via the face to face workshops in their regions and districts consortia is also offering many distributed learning opportunities and alternate forms of professional development. Many opportunities are offered via video conferences, live and cached webinars, and a job-embedded model with educators across the province being able to access and participate in a community of learning anytime, anywhere via a moodle site.

Such changes as our required by educators to adequately understand the revised Mathematics Program of Studies and ultimately, to prepare their students with the skills they need to be active citizens in the 21st century, are major, and educators are needing more time and continued province-wide and regional support to do so. Continued, ongoing provincial learning opportunities, from Institutes to webinars, are needed, as is it important to continue to consider the regional context in order to meet the various needs of educators. Consortia data from the past two years have indicated that the top factors which have positively affected teacher ability to implement the revised P of S, and the preferred form of PD, has been collaborative planning such as in PLCs, classroom demonstration lessons and workshops specific to their needs. Teachers are in need of continued, job embedded professional learning support such as have been provided province-wide by regional implementation support teachers to continue to positively affect their implementation of the revised Mathematics Program of Studies, and ultimately the transformation of our education system.

Consortia in the area of Mathematics, has been, and, given the time and supports, will continue to be instrumental in the transformation of our education system and ultimately, in providing the children in our care with the skills they need to be contributing members of the 21st century.